

DEPARTMENT OF DEFENSE

DATA ELEMENT  
STANDARDIZATION  
PROCEDURES

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COMMAND, CONTROL,  
COMMUNICATIONS  
AND INTELLIGENCE

**FOREWORD**

This Manual is issued under the authority of DoD Directive 8320.1, "Department of Defense Data Administration," September 26, 1991. It prescribes procedures for data element standardization and management necessary to support the policies of DoD Data Administration as established by DoD Directive 8320.1.

This Manual applies to the Office of the Secretary of Defense (OSD), the Military Departments (including the National Guard and Reserve Components), the Chairman of the Joint Chiefs of Staff and the Joint Staff, the Unified and Specified Combatant Commands, the Inspector General of the Department of Defense, the Defense Agencies, and the DoD Field Activities (hereafter referred to collectively as "the DoD Components"). Its provisions are applicable to all new initiatives to develop, modernize, or migrate information systems, whether automated or nonautomated.

This Manual is effective immediately; it is mandatory for use by all the DoD Components.

Send recommended changes to the Manual to:

Defense Information Systems Agency  
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## REFERENCES

- (a) FIPS Pub 11-3, "American National Dictionary for information Systems, Federal Information Processing Standards Publication," (adopted in entirety from American National Standards Institute (ANSI) X3.172-1990). February 1991.
- (b) National Bureau of Standards(NBS) Special Publication 500-149, "Guide on Data Entity Naming Conventions "October 1987
- (c) National Bureau of Standards (NBS) Special Publication 500-152, "Guide to Information Resource Dictionary System Applications: General Concepts and Strategic Systems Planning." April 1988
- (d) DoD Directive 8000.1, "Information Management Program," October 27, 1992
- (e) DoD Directive 5200.28, "Security Requirements for Automated Information Systems," March 21, 1988
- (f) DoD Directive 8320. 1, " DoD Data Administration," September 26, 1991
- (g) Section,: 2451 - 2457 (1982) of Title 10, United States Code pursuant to the "Cataloging and Standardization Act"
- (h) DoD 4120.3-M, "Defense Standardization and Specification Program Policies, Procedures, and Instructions," August, 1978; authorized by DoD Instruction 5000.2, February 23, 1991.
- (i) DoD Directive 7935.1, "DoD Automated Information Systems," September 13, 1977
- (j) MIL-STD-2167-A, "Defense Systems Software Development," June 4,1985
- (k) DDRS End User Manual, August 24,19921

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1 Available from the Defense Information Systems Agency, attention: Corporate Information Management, DoD Data Administration Program Office (DISA/CIM, DAPMO)

## DEFINITIONS

1. Application Data Element. A data element used in an automated information system. (An application data element may, or may not, be a standard data element.)
2. Attribute. A property or characteristic of one or more entities; for example, COLOR, WEIGHT, SEX. Also, a property inherent in an entity or associated with that entity for database purposes. (FIPS Pub 11-3 (reference (a)))
3. Class Word. A word in the name of a data element describing the category to which the data element belongs; e.g., "date", "name", "code." The word establishes the general structure and domain of a standard data element. (NBS Special Pub 500-149 (reference (b)), modified)
4. Data. A representation of facts, concepts, or instructions in a formalized manner suitable for communication, interpretation, or processing by humans or by automatic means. (FIPS Pub 11-3 (reference (a)))
5. Data Administration (DAdm). That function of the organization which oversees the management of data across all functions of the organization, and is responsible for central information planning and control. (NBS Special Pub 500-149 (reference (b)))
6. Data Administrator (DAd). A person or group that ensure the utility of data used within an organization by defining data policies and standards, planning for the efficient use of data, coordinating data structures among organizational components, performing logical database design, and defining data security procedures. (NBS Special Pub 500-152 (reference (c)))
7. Data Attribute. A characteristic of a unit of data such as length, value, or method of representation. (FIPS Pub 11-3 (reference (a)))
8. Data Dictionary. A specialized type of database containing metadata that is managed by a data dictionary system; a repository of information describing the characteristics of data used to design, monitor, document, protect, and control data in information systems and databases; and application of a data dictionary system. (FIPS Special Pub 500-152 (reference (c)))
9. Data Element. A named identifier of each of the entities and their attributes that are represented in a database. (FIPS Pub 11-3 (reference (a)))
10. Data Element Standardization. The process of documenting, reviewing and approving unique names, definitions, characteristics and representations of data elements according to established procedures and conventions.
11. Data Entity. An object of interest to the enterprise, usually tracked by an automated system. (NBS Special Pub 500-149 (reference (b)))
12. Data Model. In a database, the user's logical view of the data in contrast to the physically stored data, or storage structure. A description of the organization of data in a manner that reflects the information structure of an enterprise. (FIPS Pub 11 - 3 (reference (a)))

- a. Logical Data Model. A model of the data stores and flows of the organization derived from the conceptual business model. (NBS Special Pub 500-149 (reference (b)))
- b. Physical Data Model. A representation of the technologically independent requirements in a physical environment of hardware, software, and network configurations representing them in the constraints of an existing physical environment.
13. Data Steward. The person or group that manages the development, approval, and use of data within a specified functional area, ensuring that it can be used to satisfy data requirements throughout the organization.
14. Data Structure. The logical relationships which exist among units of data and the descriptive features defined for those relationships and data units; an instance or occurrence of a data model. (NBS Special Pub 500-152 (reference (c)))
15. Database. A collection of interrelated data, often with controlled redundancy, organize according to a schema to serve one or more applications; the data are stored so that they can be used by different programs without concern for the data structure or organization. A common approach is used to add new data and to modify and retrieve existing data. (FIPS Pub 11-3 (reference (a)))
16. Dictionary. See Data Dictionary.
17. Domain. The set of permissible data values from which actual values are taken for a particular attribute or specific data element. In a relational database, all of the permissible tuples for a given relation. (FIPS Pub 11-3 (reference (a)))
- a. General Domain. The permissible data values allowed in representations of a data element defined in terms of the character set which can be used; e.g., A-Z, 09, etc.
- b. Specific Domain. An enumerated set of values allowed in data representations of a data element; e.g., Friday, Saturday, Sunday.
18. Entity. See Data Entity.
19. Generic Element. A generic element is the part of a data element that establishes a structure and limits the allowable set of values of a data element. A generic element has no functional or application context other than to define a general class of data and ensure consistency in structure and domain.
20. Information. Any communication or reception of knowledge such as facts, data, or opinions, including numerical, graphic, or narrative forms, whether oral or maintained in any medium, including computerized databases, paper, microforms, or magnetic tape. (DODD 8000.1 (reference (d)))
21. Information System. The organized collection, processing, maintenance, transmission, and dissemination of information in accordance with defined procedures, whether automated or manual. (DODD 5200.28 (reference (e)), modified)



22. Metadata. Information describing the characteristics of data; data or information about data; descriptive information about an organization's data, data activities, systems, and holdings. (NBS Special Publication 500-152 (reference (c))).
23. Migration Data. Data from or within a migration system. See also Migration System.
24. Migration System. An existing automated information system, or a planned and approved automated information system, that has been officially designated to support standard processes for a functional activity applicable DoD-wide or Component-wide.
25. Modifier. A word which helps define and render a name unique within the database, which is not the prime or class word. (NBS Special Pub 500-149 (reference (b)))
26. Nonstandard Data Element. Any data element that exists in a system or application program and does not conform to the conventions, procedures, or guidelines established by the organization.
27. Prime Word. A word included in the name of a data entity which represents the logical data grouping (in the logical data model) to which it belongs. (NBS Special Pub 500-149 (reference (b)))
28. Property Modifier. A word (adjective) that may occur in a data element name between the prime word and the class word modifiers. Property modifiers result directly from the attributes of a data model entity and further refine the prime word, or the class word, but do not dictate the structure of the data element. Normally, property modifiers are related to the generic element.
29. Qualitative Data. A data value that is a non-numeric description of a person, place, thing, event, activity, or concept.
30. Quantitative Data. Numerical expressions that use Arabic numbers, upon which mathematical operations can be performed.
31. Standard Data Element. A data element which has been submitted formally for standardization in accordance with the organization's data element standardization procedures.

ABBREVIATIONS AND/OR ACRONYMS

ASCII	American Standard Code for Information Interchange
CDAd	Component Data Administrator
DAd	Data Administrator
DBMS	Database Management System
DDI	Director, Defense Information
DDRS	Defense Data Repository System
DoD	Department of Defense
FDAd	Functional Data Administrator
DTIC	Defense Technical Information Center
FIPS	Federal Information Processing Standards
IRM	Information Resource Management
NTIS	National Technical Information Service
OSD	Office of the Secretary of Defense

## CHAPTER 1

### GENERAL INFORMATION

#### A. INTRODUCTION

This Manual is one of a series of manuals which describes data administration procedures. This Manual specifically addresses data element standardization procedures.

Data are principal DoD resources which, like other organizational resources, must be managed effectively. Data are a representation of facts, concepts, or instructions in a formalized manner suitable for communication, interpretation, or processing by human or automated means. The data required by an organization can be graphically represented in data models. Data models contain data entities, the relationships between the various data entities, and data entity attributes. A data entity attribute becomes a DoD standard data element after application of the procedures in this Manual. Data elements are the physical representation of data entity attributes. Data elements are obtained from data models and represent DoD data requirements. Use of standard data elements enhances interoperability among DoD information systems, facilitates increased data sharing, reduces data handling costs and leads to better data accuracy, consistency, and timeliness. The data element standardization procedures outlined in Chapters 3 through 6 of this Manual provide the framework necessary to maximize data sharing opportunities throughout the Department of Defense and to enable enforcement of data standards through the use of automated data administration tools.

#### B. PURPOSE

This Manual issues the procedures for data element standardization and management necessary to support the policies of DoD Data Administration as established by DoD Directive 8320.1 (reference (f)). Key policy requirements include:

1. Implementing data administration aggressively in ways that provide clear, concise, consistent, unambiguous, and easily accessible data DoD-wide, and that minimize the cost and time required to transform, translate, or research differently named or described data that actually represent identical data requirements.
2. Standardizing and registering data elements to meet the requirements for data sharing and interoperability among information systems throughout the Department of Defense.
3. Promoting standardization of data elements in the Department of Defense in a manner consistent with requirements for sharing data among the OSD Principal Staff Assistants, the Heads of the DoD Components, with the other Federal Agencies, with the non-Federal community, and with other nations under treaty or international agreement.
4. Using applicable Federal, national, and international standards before creating DoD standards or using common commercial practices. If a potential conflict is identified between higher level standards and DoD naming conventions, it immediately should be brought to the attention of the DoD Data Administrator (DAd) through the appropriate Component or Functional Data Administrator.

C. SCOPE

The scope of DoD data element standardization includes installation and/or base, strategic, tactical, theater, research and development, and administrative data requirements, and supports the principles for data standardization that are considered to be consistent with the "Cataloging and Standardization Act" (reference (g)) described in DoD 4120.3-M, Chapter 1, section 1 (reference (h)). it does not apply to data elements that are uniquely required in cryptologic activities but does apply to general signals intelligence reporting and to the end products of cryptologic programs and systems disseminated to noncryptologic activities.

D. APPLICABILITY

1. This Manual pertains specifically to the development, approval, and maintenance of DoD standard data elements and applies to all DoD organizational elements and conditions specified in DoD Directive 8320.1 (reference (f)).

2. Use of these procedures is mandatory on the effective date of this Manual. These procedures apply to all new initiatives to develop, or migrate, an automated information system started on or after the effective date of this Manual. They also apply to modernization of an automated information system that affects 30% or more of the existing lines of code and to any new data elements added to an existing information system. Deferments due to exceptional circumstances may be granted by the DoD DAd based on an Implementation plan that clearly describes a transition to the use of DoD standard data elements.

3. Migration systems, to include those designated as migration systems before the publication of this Manual, are required to conform with the procedures in this Manual. The transition to using DoD standard data elements will be specifically described and approved by the responsible OSD Principal Staff Assistant or Component Head. Existing migration system data elements are required to be registered in a central repository, presently the Defense Data Repository System (DDRS), as application data elements.

4. It is not required that data elements in existing systems be restructured to conform to the design, definition, and naming rules specified in this Manual unless the existing system is designated a migration system, in which case Paragraph D.3., above, applies. Some existing system data elements not in a migration system may be the only source of a valid, continuing data requirement. In such cases, it may be required to restructure the data element(s) and incorporate it (them) into a migration system requirement.

5. Organizations that develop and use classified data elements should follow this Manual but should not submit classified data for inclusion in the DDRS. The DDRS will evolve to be able to process classified data at which time organizations having classified data element names and/or classified data about data elements (metadata) will be required to submit the data for registration.

E. OBJECTIVES

The primary objectives of DoD data element standardization are to:

1. Promote interoperability among operational forces and among the DoD functional areas in support of military missions through improved data sharing.
2. Control data redundancy.
3. Minimize data processing and storage among information systems and databases.
4. Improve data integrity, i.e., the accuracy and consistency of data throughout the Department.
5. Reduce cost and time to develop, field, and maintain systems.

#### F. STRATEGY

This Manual includes the criteria and rules for standardization of data elements and their attributes throughout the Department of Defense. It is the intent of DoD Data Administration, through these procedures, to:

1. Develop data element standards that satisfy DoD Component mission needs and that support operational capabilities requiring the collection, storage, and exchange of data. The standard data elements will be obtained through data modeling efforts and the continued development of the DoD data model.
2. Develop an awareness of the value of managing the DoD data resource.
3. Provide guidance for the uniform description and representation of data.
4. Provide a management mechanism that:
  - a. Implements DoD data administration policy.
  - b. Provides for full participation of functional and DoD Component authorities in data administration activities.
5. Aggressively migrate to data administration required by DoD Directive 8320.1 (reference (f) while preserving, to the extent possible, current investments in data.
6. Support the development of common data requirements and formats to eliminate data definition redundancies and discrepancies.
7. Minimize the cost and time expended in transforming, translating, or researching the meaning of differently named but otherwise identical data elements, or same named but different definition/meaning data elements.
8. Improve the integrity and usage of data through data structuring rules and standards and by coordinating data element definitions among functional and line organizations.
9. Document standard data, their definitions, and other attributes in a single DoD reference data dictionary and/or repository. The reference data dictionary may be copied but will be centrally maintained as the DDRS. The DDRS will be expanded over time to support the DoD Data Administration Program and become the

Information Resource Dictionary System described in DoD Directive 8320.1 (reference(f)). Until that time, it is understood that it may be necessary for DoD Components and functionals to maintain their own data dictionary/repository. Components and functionals are not to develop new dictionary/repository software systems to support data element standardization, but rather should obtain a copy of existing DoD data dictionary software.

## CHAPTER 2

### DATA ELEMENT CONCEPTS

#### A. PURPOSE

The concepts discussed in this chapter are fundamental to the development, identification, and definition of standard generic elements and standard data elements. This information provides a basis for understanding the development, approval, and maintenance procedures for generic elements and data elements.

#### B. DATA ELEMENT

1. A data element is a basic unit of information having a name, meaning, and subcategories (data items) of distinct units and values. Through its name and definition a data element must convey a single, informational concept.

2. Data elements are derived from data entities and their attributes identified in data models. Each data element is the physical representation of a data model entity attribute.

3. A data element name consists of a prime word, a class word, and modifiers. The format for a data element name is shown in Figure 2-1, below.

<GRAPHIC: DOD21.PCX>

(Graphic DOD21.PCX not included on original disk.)

Figure 2-1 Data Element Name Format

4. Any data element that has been identified as a functional data requirement in a validated, approved Component or functional data model, which can be related

to the DoD data model, and is used by more than one application or information system will be standardized.

5. Any data element that has been prescribed by information system computer program specifications to support internal system processing requirements only, will not be standardized (e.g., logic flow controls, counters, subscripts, "flags").

6. All standard data elements must be documented in accordance with the DoD standardization procedures and naming conventions established in Chapter 3, below.

7. There are five possible components of a data element as shown in Figure 21, above. They are:

a. Prime Word

(1) A prime word is the noun designation given to an entity identified in a data model. For example, a company may need to maintain information about customers, so an entity "Customer" could exist. The prime word for this entity would also be called "Customer." The prime word identifies the object to which the data element refers.

(2) Prime words are centrally controlled and maintained by the DoD DAd. Proposals for new prime words must be based on an expansion of the DoD Data model and submitted through the appropriate Component or Functional Data Administrator to the DoD DAd for approval. Words used as prime words in some data element names may be used as modifiers in other data element names.

b. Prime Word Modifier

Prime word modifiers are adjectives which further refine and categorize the prime word. They designate the name of a data subentity in the data model and distinguish it from other subentities of the same data entity. They are needed to distinguish that data subcategory from other subcategories of data represented by the data entity. For example, a company may be interested in information about two distinct groups of customers, "Retail Customers" and "Wholesale Customers." The prime word modifiers "Retail" and "Wholesale" are used to distinguish between these two types of customers.

c. Class Word

(1) A Class Word is a noun that prescribes a definition for a general category of data. A class word designates the category of data into which a data element fits. Examples of class words are "Code," "Name," and "Quantity."

(2) Class words are centrally controlled and maintained by the DoD DAd. DoD class words are listed in Appendix A, below, together with Figure A-1 to assist in class word selection. Proposals for new class words must be submitted through the appropriate Component or Functional Data Administrator to the DoD DAd for approval. Class words are restricted and can not be used as prime words or modifiers in a data element name.



d. Class Word Modifiers

A class word modifier is a word (adjective) that is used to further refine or describe a class word. When used, a modifier must distinguish one data element from another and normally will narrow the range of the allowable values established by a class word.

Example: Month Name

Here, "Month" is modifying the class word "Name" and restricts the possible range of values from all possible names of anything to names of months.

e. Property Modifiers

The second group of Modifiers that may occur in a data element name are between the prime word and the class word modifiers. They are property modifiers. They result directly from the attributes of a data model entity and further refine the prime word, or the class word, but do not dictate the structure (maximum size or data type; e.g., real, integer, character) of the data element. Normally, they are modifiers to the generic element, discussed in section C., below.

Example: Carrier Destination Geographic Location Code

Here, "Carrier" is the entity, and the property modifier is "Destination." While "Destination" does further modify "Geographic Location Code," it should not be merged to form a new generic element because "Destination" does not restrict the domain or structure of Geographic Location Code.' (See subsection C.1., below.)

C. GENERIC ELEMENT

1. A generic element is the part of a data element that establishes a structure (maximum-size/length and data type) and limits the allowable set of values of a data element. A generic element has no functional or application context other than to define a general class of data and ensure consistency in structure and domain. The domain (permissible set of values) of a generic element may be specific or general.

2. Each data element must include one and only one generic element to identify the class of data and the allowable values that may represent the data element. A data element may use all or part of the generic element domain, but may not exceed the domain.

3. A generic element consists of a class word and, if necessary, modifiers.

Example:

The data element "Individual Citizenship Month Code" in which the generic element is "Month Code."

Data element name: Individual Citizenship Month Code

Data element domain:   01 - January  
                               02 - February  
                               03 - March  
                               etc.

4. A generic element may consist of only a class word (i.e., a single word generic element that establishes the structure and range of values for a data element). For example, the single-word generic element "Name" consists only of a class word and is defined as: A designation of an object or entity expressed in a word or phrase." The established domain for the generic element "Name" or a subset of that domain can be used to form many data elements.

Example:

Generic element name: Name

Generic element domain definition text: A general domain comprised of the alphabetic characters in the ASCII character set.

Data element name: Individual Eye Color Name

Data element domain definition text: A specific domain comprised of the ASCII characters: A - Z.

Data element domain value identifier: Blue  
Brown  
Gray  
Green  
Hazel

#### D. DOMAIN

A domain is a set of valid data values approved for use with a generic element or a data element. Domains for generic elements and data elements must be approved by the data steward (a designated FDAD) of the element. A domain can be either specific or general.

##### 1. Specific Domain

A specific domain has a finite definition and an enumerable set of data representations as shown in the example below. A specific domain is defined by naming the acceptable values allowed in a prescribed set of data representations.

Example:

Data element name: Individual Eye Color Name

Data element domain value identifier: Blue  
Brown  
Gray  
Green  
Hazel

##### 2. General Domain

A general domain has a broad definition and a large (possibly infinite) set of acceptable values that cannot be enumerated within reason. A general domain is

described by establishing a set of possible values, but does not list all the possible values. Certain values or characters may be restricted. An example of a general domain is shown below:

Example:

Data element name:	Individual Pulse Rate
Data element domain definition text:	A general domain comprised of the ASCII characters 0 - 9.

#### E. METADATA

1. Data elements have definitive characteristics that quantify, identify, or describe a representational, administrative, or relational concept. Metadata are data about data. In the context of data elements, metadata are data (or facts) about data elements or generic elements.
2. Generic elements and data elements are maintained in the DDRS and are described by metadata. For example, generic elements and data elements have names, definitions, and domains. Unit of measure, e.g., feet, tons, miles per hour, etc., is also a characteristic of a data element or generic element and as such is an item of metadata.
3. A list and description of DDRS metadata is provided in Appendix B, below, in this Manual. (See the DDRS End User Manual (reference (k)) for additional information.)

#### F. DATA ELEMENT STANDARDIZATION PHASES

Generic elements and data elements evolve through the following standardization phases (prime words and class words have corresponding phases):

1. Developmental. Generic elements and data elements that have been created but have not yet been released by the originator for standardization review. The requirement for a data element is normally identified during data modeling or through analyzing new functional requirements such as those required by new legislation. (See Chapter 3, below.)
2. Candidate. Generic elements and data elements that have been submitted by a Functional Data Administrator (FDAD) or Component Data Administrator (CDAD) for formal review. (See Chapter 4, below.)
3. Approved. Generic elements and data elements that have been coordinated through the standardization process as specified in Chapter 5, below.
4. Disapproved. Generic elements and data elements that have been coordinated through the standardization process specified in Chapter 5, below, and whose use has been disapproved.
5. Modified. Generic elements and data elements that were previously approved and are currently being considered for change. These elements go through

the same formal review as candidate standard generic and data elements. (See Chapter 6, section C., below.)

6. Archived. Generic elements and data elements that were formerly approved, but are no longer needed to support the information needs of the Department of Defense. (See Chapter 6, section D., below.)

### CHAPTER 3

#### DATA ELEMENT DESIGN, DEFINITION, AND NAMING

##### A. PURPOSE

This chapter provides guidance for designing, defining, and naming data elements that can be used throughout the Department by multiple functional communities. Implementation of this guidance is covered under the processes discussed in Chapters 4, 5, and 6, below.

##### B. DATA ELEMENT DESIGN

The quality of the data element is the key to the sound foundation for all data structures. Proper emphasis on the creation, naming, and definition of data elements will improve the quality of the entire data structure. Standard data elements should be based upon the data entities and data entity attributes identified in the DoD data model, or recommended for expansion of the DoD data model from a lower level data model, to ensure maximum shareability and interoperability of data throughout the Department of Defense. Several considerations are important to the quality of the data element.

1. Data elements must be designed:
  - a. To represent the attributes (characteristics) of data entities identified in data models. A model-driven approach to data standards provides a logical basis for, and lends integrity to, standard data elements.
  - b. According to functional requirements and logical, and not physical, characteristics. Physical characteristics include any connotations regarding technology (hardware or software), physical location (databases, records, files, or tables), organization (data steward), or application (systems, applications, or programs).
  - c. According to the purpose or function of the data element rather than how, where, and when the data element is used or who uses it. It indicates what the data element represents and ensures common understanding.
  - d. So that it has singularity of purpose. Data elements must not have more than one meaning. A data element should reflect a single concept to promote shareability and data independence from applications using the data element.
  - e. With generic element values (domain) that are mutually exclusive and totally exhaustive when the class word 'Code' is used.
2. Data elements should not be designed with:
  - a. Values (domain) that may be confused with another value in the same domain. For example mixing similar numbers and letters such as: 0/O, 1/I, 2/Z, U/V and 5/S.
  - b. Values (domain) that have embedded meaning or intelligence within part of the code when the class word 'Code' is used. For example, do not develop a multiple-character code where

in the value of one or more of the characters in the code have special meaning (i.e., a benefits plan code such as "201," "202," "204," or "205," where the last digit identifies a particular option within the benefit plan).

- c. Overlap or redundancy among the purpose or use of different data elements (e.g., "Birth Date," "Current Date," and "Age").

#### C. DATA ELEMENT DEFINITION

The definition and naming of a data element is an iterative design process with the data element definition often being modified as the data element is being developed.

##### 1. Data element definitions must:

- a. Be based on the definitions of data entity attributes established in the DoD data model or established in an approved data model linked (mapped) to the DoD data model.

- b. Have a structure which centers around the generic element of the data it describes.

Developing a standard data definition using a structure minimizes "writer's block" and facilitates the development of consistent and meaningful definitions that can be accepted by all users. Examples of data definition structures for each class word are contained in Appendix A, below.

- c. Define WHAT the data is, not HOW, WHERE, or WHEN data are used or WHO uses the data.

- d. Be more than just a reiteration of the data element name. The definition must add meaning to the name and not merely rephrase the name. The class word is an exception, its meaning does not need to be redefined in each definition.

- e. Describe its purpose and usefulness and must not contain physical characteristics. The definition must describe logical, not physical, qualities.

- f. Have one and only one interpretation and must not be ambiguous. Terms with differing or varying connotations must have their meanings clearly explained in the definition.

##### 2. Data element definitions must not:

- a. Contain conjunctions or phrases indicating multiplicity of purpose of a data element, ambiguity of definition, or process orientation.

- b. Contain technical jargon that may be unfamiliar to the reader.

- c. Contain acronyms and abbreviations.

- d. Restate the characteristics of the data element. For example, do not use statements or phrases such as "...seven characters in length..." or "... an alpha-numeric code..." in the definition.

e. Restate a process definition that describes how a data element is calculated, derived, assimilated, or manipulated.

f. Contain information about the valid values or domain of the data elements.

g. Be circular. A situation cannot exist where one definition points to a second definition for further explanation and the second definition points back to the original definition.

D. DATA ELEMENT NAMING

The set of guidelines for naming data elements establishes a naming convention, or classification scheme, that will make it easier to determine if a data requirement is already being met within the Department of Defense or if it is a new requirement that needs to be fully defined and the data collected and distributed as necessary.

1. The names of data elements should:

a. Be based on the names of data entity attributes identified in the DoD data model or an approved data model linked (mapped) to the DoD data model.

b. Be clear, accurate, and self-explanatory.

c. Be named according to logical, and not physical considerations. Physical characteristics include any connotations regarding technology (hardware or software), physical location (databases, files, or tables), organization (data steward), or function (systems, applications, or programs).

d. Consist of the minimum number of words that categorize the data element. Fewer words may be too general while more words may be too narrow or restrictive. Modifiers may be used with class words, generic elements, and prime words to fully describe generic elements and data elements. Modifiers are often derived from the data entity attribute names and the entity names identified in the DoD data model or an approved data model linked (mapped) to the DoD data model.

e. Include only alphabetic characters (A-Z, a-z), hyphens (-), and spaces().

f. Have each component of the name separated by a space.

g. Have multiple word prime words connected with hyphens. Examples of multiple prime words might be "Purchase-Order," "Medical-Facility," or "CivilianGovernment."

2. The following are not permitted in data element names:

a. Words which redefine the data element or contain information that more correctly belongs in the definition.

b. Class words used as modifiers or prime words.

c. Abbreviations or acronyms. (Exceptions to this rule may be granted by the DoD DAd in the case of universally accepted abbreviations or acronyms. The DDRS will contain a list of approved abbreviations and acronyms.)

d. Names of organizations, computer or information systems, directives, forms, screens, or reports.

e. Titles of blocks, rows, or columns of screens, reports, forms, or listings.

f. Expression of multiple concepts, either implicitly or explicitly.

g. Plurals of words.

h. The possessive forms of a word, i.e., a word which denotes ownership.

i. Articles (e.g., a, an, the).

j. Conjunctions (e.g., and, or, but).

k. Verbs.

i. Prepositions (e.g., at, by, for, from, in, of, to).



## CHAPTER 4

### DATA ELEMENT DEVELOPMENT PROCEDURES

#### A. INTRODUCTION

1. Data requirements are identified by users (consumers or suppliers of information) who need to make decisions or conduct operations, or by system developers who support users. Data elements are not developed by data administrators or users working in isolation. Data elements are developed by users working together with functional experts and data administrators to assist in defining and meeting the users' data requirements. In many cases it will be discovered that the users' requirement is already being met within the Department of Defense, and the problem is to make the data available only to the "new" user of the data element. A quick review of standard data elements in the DDRS can often result in identification of a data element which meets the user's requirement and saves development time.

2. Data elements are named in the context of the organization's data model and with a view towards integration of the data element into the DoD data model. Awareness of the DoD data model will facilitate naming data elements, help avoid duplication, and support consistency throughout the Department of Defense.

#### B. PURPOSE

1. The procedures presented in this Chapter have been established to facilitate the efficient development of DoD standard data elements. After completing these procedures, data elements will be ready to enter the DoD data element standardization approval process. The data element development, approval, and maintenance procedures are shown in Figure 4-1, below.

2. These procedures are applicable when developing new DoD standard data elements, reverse engineering, or reengineering existing data elements in migration or other existing systems to develop DoD standard data elements.

3. Before going through the development of a standard data element it is wise to have a complete understanding of the data requirement. A quick review of existing DoD standard data elements might result in finding the standard data element already exists. The standard data element should then be used, or if necessary a modification to it can be prepared. This can save considerable time and effort. If no adequate standard data element exists, the steps outlined below and in Figure 4-1, below, should be followed.

#### C. ASSEMBLE SOURCE DOCUMENTATION

1. Gather all available documentation that may provide information for, or assist in, completing the DoD standard metadata of the generic element(s) and/or data element(s) to be proposed for standardization. The DoD data model and the DDRS are primary sources of information for developing a DoD standard data element. Additional references and resources include the following:

- a. Functional information resources
- b. Functional or Component data models and process models

<GRAPHIC: DOD41.PCX>

(Graphic DOD41.PCX not included on original disk.)

Figure 4-1 Data Element Development, Approval, and Maintenance

- c. Functional and Component data dictionaries that may exist
- d. Federal information processing standards (FIPS)
- e. "Dictionary of Business Terms
- f. Unabridged dictionary
- g. U.S. Military Dictionary (Dictionary of Military Term/Acronym)
- h. Thesaurus
- i. Notes from interviews with business and systems analysts
- j. DoD Publications, Manuals, Directives and/or Instructions
- k. System documentation
- l. Technical writing guide
- m. "DDRS End User-Manual"

2. A data element development work sheet may be prepared for documenting data element attributes. (See the DDRS End User Manual (reference (k)). On-line development of data elements in the DDRS is strongly encouraged.

3. Access to the DDRS may be directed through functional dictionaries or Component dictionaries depending upon the procedures established by the respective FDADs or CDADs.

D. IDENTIFY PRIME WORD NAME (MANDATORY) WITH MODIFIER NAME(S) (OPTIONAL)

1. Identify Prime Word Name

a. From the DoD data model, identify the data entity of the attribute for which the data element is being developed (e.g., airport, individual, vehicle). These are represented by the prime words listed in the DDRS.

b. If no entity in the DoD data model seems appropriate, a candidate DoD data model entity must be prepared and submitted through the appropriate CDAD or FDAD to the DoD DAD. The candidate entity will often come from a lower level data model that maps to the DoD data model, and will be the source of the prime word. The candidate standard data element may be prepared and submitted simultaneously with the candidate entity submission.

2. Identify Prime Word Modifier Name(s)

a. The addition of modifiers to further describe the data entity for which data is to be collected is optional.

b. The number of prime word modifiers should be minimized.

c. The modifiers are normally selected from the entity names of the next two higher level entities in the DoD data model.

d. The DDRS contains a list of modifiers that have previously been approved. This restricted vocabulary should be used whenever possible.

3. Combine the prime word modifier name(s) and the prime word name. Order multiple modifiers from right to left, general to specific. (See "Data Element Naming Rules" in Chapter 3, section D., above.)



4. There may be times when a prime word modifier more logically should follow the prime word rather than precede it. This is allowable but should be done with discretion. These modifiers were referred to as property modifiers in Chapter 2, above.

E. DEVELOP DEFINITION OF PRIME WORD AND MODIFIER(S)

1. Review the definitions of the data entity in the source data model and the associated attribute for which the data element is being developed and relate it to the associated data entity in the DoD data model.

2. Formulate a definition for the prime word with its modifier(s).

3. Make the definition a logically sequenced, grammatically and structurally correct, simple sentence. (See "Data Element Definition Rules" in Chapter 3, section C., above.)

4. Edit and refine the definition according to the standards of English writing.

F. DEVELOP GENERIC ELEMENT NAME (MANDATORY)

1. Identify Class Word Name

a. Identify the category of data associated with the data entity attribute for which the data element is being developed (e.g., code, name, and amount). This will come from the class word name list contained in Appendix A, below. Figure A 1, below, will assist in class word name selection.

b. If no class word on the list seems to be appropriate, a candidate word may be submitted through the appropriate CDAD or FDAD to the DoD DAD. The candidate standard data element may be prepared and submitted simultaneously with the candidate class word submission.

2. Identify Class Word Modifier Name(s)

a. The addition of modifiers to further describe and restrict the category of data to be collected is optional.

b. A minimum number of words should be selected as modifiers to describe the class word name.

c. The modifiers should be selected from the data entity attribute name in the DoD data model whenever possible.

d. The DDRS contains a list of modifiers which have previously been approved. This restricted vocabulary should be used whenever possible.

3. Combine the class word modifier name(s) and the selected class word name to form the generic element name. Order multiple modifiers from right to left, general to specific. (See "Data Element Naming Rules" in Chapter 3, above.)

G. DEVELOP GENERIC ELEMENT DEFINITION (MANDATORY)

If the standard generic element already exists, go directly to section J., below.

1. Select the generic element definition structure for the class word to be used in the generic element. (See Appendix A, below.)
2. Formulate a definition for the class word modifiers and incorporate the modifier definition into the generic element definition structure.
3. Make the definition a logically sequenced, grammatically and structurally correct, simple sentence definition. (See "Data Element Definition Rules" in Chapter 3, above.)
4. Edit and refine the generic element definition according to acceptable English writing conventions.

H. IDENTIFY GENERIC ELEMENT NAME (MANDATORY) WITH PROPERTY MODIFIER (OPTIONAL)

1. Sometimes generic elements require additional modifiers. These were referred to as property modifiers in Chapter 2, above.
2. The addition of such modifiers is optional and should be avoided whenever possible.
3. The DDRS contains a list of modifiers that have previously been used. This restricted vocabulary should be used whenever possible.
4. Combine the property modifier(s) and the generic element name.
5. Unit of measure is not allowed as part of a generic element name.

I. DEVELOP DEFINITION OF GENERIC ELEMENT AND MODIFIER(S)

1. Formulate a definition for the generic element modifier(s) and incorporate the modifier(s) definition with the generic definition structure.
2. Make the definition a logically sequenced, grammatically and structurally correct, simple sentence definition. (See "Data Element Definition Rules" in Chapter 3, above.)
3. Edit and refine the generic element with modifier(s) definition according to acceptable English writing conventions.

J. DEVELOP DATA ELEMENT NAME (MANDATORY)

1. Combine the prime word name with its modifier(s) and the generic element name with its modifier(s) to form the data element name. (See "Data Element Naming Rules" in Chapter 3, above.)
2. Ensure that the domain of the data element is consistent with, or a subset of, the domain of the generic element.



K. DEVELOP DATA ELEMENT DEFINITION (MANDATORY))

1. Incorporate the prime word with modifier(s) definition into the generic element with modifier(s) definition.
2. Make the definition a logically sequenced, grammatically and structurally correct, simple sentence definition. (See "Data Element Definition Rules" in Chapter 3, above.)
3. Edit and refine the data element definition according to the standards of English writing.

L. RESEARCH EXISTING ELEMENTS

1. Following the procedures in the DDRS End User Manual (reference (1)), search the DDRS to locate generic element(s) having a name the same as, or similar to, the generic element name just developed.
2. If no approved, modified, candidate, or archived generic element is identified, continue development of a new generic element (section M., below).
3. For each generic element found in the DDRS, list the standard data elements in the DDRS whose names contain the same or similar prime word with modifier(s) name.
4. Compare the name being developed with the names on the list from the DDRS.
5. Identify the name of each data element from the DDRS that describes the same concept as the name being developed.
6. Compare the definition of the data element under development with the definition of each data element identified in the step 5., above.
7. Identify the name of each data element having a matching definition.
8. Review the value domain of each data element identified in step 7., above.
9. Identify the name of each data element having a domain that either matches, includes all of the values of (superset), or approximates the intended domain of the data element under development. If more than one is identified, determine which best represents the data element under development.
10. Review the mandatory attributes of each data element identified in step 9., above.
11. Identify the name of each data element having required attributes that either match or approximate the intended attribute values of the data element under development.
12. Select the data element from the previous step having mandatory attribute values nearest those of the data element under development. This procedure should result in no more than one approved, modified, candidate or archived data element.



13. If no data element will fulfill the requirements of the data element under development, continue development of the new data element (See section O., below).

14. If an approved, modified, or candidate data element will fulfill the requirements of the data element under development, prepare and submit the attributes required to register a new application of the existing data element according to the procedures in Chapter 6, section B., below.

15. If an approved or archived data element-, can be modified to fulfill the requirements of the data element under development, prepare the required modifications to the selected element and submit these changes to the appropriate FDAD or CDAD for coordination and preliminary review, as described in Chapter 5, below.

16. If an archived data element will fulfill the requirements of the data element under development, reinstate the archived data element according to the procedures in Chapter 6, section E., below.

M. IDENTIFY GENERIC ELEMENT DOMAIN (MANDATORY)

Skip section M. if a new generic element is not being developed.

1. Record the generic element domain definition text to describe the overall meaning or general characteristics of the generic element domain.

2. For a generic element with a specific domain, record each value (generic element domain value identifier) and the definition for each value (generic element domain value definition text). (If the domain is excessively large, an extract sample list should be given along with the source document for the complete list in lieu of the entire domain list.)

3. For all quantitative class words, record the allowable range of the domain values (generic element low-range identifier and generic element high-range identifier).

N. RECORD REMAINING GENERIC ELEMENT ATTRIBUTES

Skip section N. if a new generic element is not being developed.

Record values for each of the remaining mandatory attributes and any appropriate optional attributes for the new generic element. Refer to the detailed standard generic element attribute descriptions in Appendix B, below.

O. IDENTIFY DATA ELEMENT DOMAIN (MANDATORY)

1. Enter the data element domain definition text to describe the overall meaning or general characteristics of the data element domain.

2. For a data element with a specific domain, enter each value (standard data element domain value Identifier) and the definition for each value (standard data element domain value definition text). The domain values must be the same or a subset of the domain values of the associated generic element. (If the domain is

excessively large an extract sample list should be given along with the source document for the complete list in lieu of the entire domain list.)

3. For all quantitative class words (see Page A-6), enter the allowable range of the domain values (standard data element low-range identifier and standard data element high-range identifier). The low-range and high-range values must be equal to or a subset of the low-range and high-range values of the associated generic element.

4. if a standard generic element exists that contains some, but not all the domain values of the data element being developed, prepare and submit the required modifications as a modified standard generic element. The candidate standard data element may be prepared and submitted simultaneously.

P. RECORD REMAINING DATA ELEMENT ATTRIBUTES

Record values for each of the remaining mandatory attributes and any appropriate optional attributes for the data element. Refer to the detailed standard data element attribute descriptions in Appendix B, below.

Q. SUBMIT PROPOSED ELEMENT(S) FOR APPROVAL

Submit the developmental generic element and/or data element information to the appropriate FDAD or CDAD for coordination and preliminary review, as described in Chapter 5, below.

CHAPTER 5  
STANDARDIZATION APPROVAL PROCESS

A. PURPOSE

This Chapter describes the procedures to be used when generic elements or data elements are being considered for adoption as approved standards. The approval process for data elements and generic elements is identical. Prime words and class words have a corresponding process. All references to "data element" in this chapter pertain equally to generic elements and data elements except where noted separately.

B. COORDINATION PROCEDURES

1. Any DoD information system user or developer within the DoD may propose a data element for standardization and submit it through Component or functional channels for approval.

a. Data elements originated in support of an OSD functional area or Joint Warfighting requirement will be processed within the functional area, in accordance with the procedures established by the FDAD. These procedures must conform to the policies and procedures of DoD Directive 8320.1 (reference (f)) and this Manual. The FDADs may require their respective functional users or system developers to submit developmental data elements into a functional data dictionary, a functional partition of the DDRS, or require that they be Submitted to the FDAD in a prescribed electronic or nonelectronic format.

b. Developmental data elements originated in support of a DoD Component requirement will be processed within the Component in accordance with the procedures established by the CDAD. These procedures must conform to the policies and procedures of DoD Directive 8320.1 (reference (f)) and this Manual. The CDADs may permit their Component users or system developers to enter developmental data elements into a Component data dictionary, a Component partition of the DDRS, or require that they be submitted in a prescribed electronic or nonelectronic format.

2. The CDAD will review developmental data elements proposed at the DoD Component level to ensure compliance with the rules and procedures described in Chapters 3 and 4, above, before submitting the data element as a candidate standard. The Component's functional representatives are encouraged to discuss the data element with their DoD functional counterparts before submitting the data element to the CDAD and during the Component review.

3. The FDAD will review the developmental data elements proposed at the OSD functional level to ensure compliance with the rules and procedures described in Chapters 3 and 4, above, before submitting the data element as a candidate standard. The FDAD is encouraged to discuss the data element with functional counterparts in the Components before submitting the data element as a candidate standard data element.

C. PRELIMINARY REVIEW

Developmental data elements will be reviewed in accordance with Component and/or functional procedures for adherence to technical and functional requirements before being forwarded to a FDAD or CDAD for submission as candidate or modified standard data elements. Each FDAD and CDAD will validate and submit each developmental data element through the following process:

1. Review developmental data elements for adherence to the following technical and functional requirements:

a. The data element requirement must be derived from and at a model approved by a Component Head or OSD Principal Staff Assistant that can be mapped to the DoD data model.

b. The definition of the data element must fully describe the data requirement and convey only one concept, as outlined in Chapter 3, above.

c. The data element name must conform to the data element naming guidelines described in Chapter 3, above.

d. The mandatory metadata attributes of the data element must be fully described.

e. The generic element associated with the data element must be contained in the DDRS in an approved, candidate, or modified status before the data element can be submitted as a candidate or modified standard data element; or a candidate or modified generic element must be developed and submitted at the same time as the data element.

2. Review develop mental generic elements for adherence to the following technical and functional requirements:

a. The generic element is required in a developmental data element because no existing standard generic element is sufficient.

b. The definition of the generic element must describe the kind of data stored in all associated data elements.

c. The generic element name must conform to the data element naming guidelines described in Chapter 3, above.

d. The mandatory metadata attributes of the generic element must be fully described.

3. Return to the originator any data element that does not meet the criteria in Chapter 4, above, with the reason(s) for the rejection.

4. For data elements that meet the criteria in Chapter 4, above:

a. Confirm that a suitable data element does not already exist by reviewing all standard data elements in the DDRS that have the same or similar names or descriptions. (This includes archived standard data elements.)

b. If the attributes of the data element are identical or similar to a standard data element in the DDRS, return the developmental or modified data element to the originator for further review of the existing standard data element(s).

(1) The developmental data element originator should review the existing standard data element(s) to determine if a new data element is required. If the existing standard data element is suitable, the originator may either use the existing standard data element, as defined, or propose a modification to the existing standard data element or an existing standard generic element.

(2) If an existing standard data element is to be used as defined, the developer/user must identify the additional system(s) that will use the standard data element and request that their CDAd or FDAd register the application(s) that use the standard data element in the DDRS.

5. Enter the validated developmental data element(s) into the DDRS as candidate or modified standard data elements to begin the approval process. The FDAD designated as the data steward of each of the candidate standard data elements and the DoD DAd automatically will be notified that new candidate or modified standard elements are awaiting their review.

#### D. FORMAL REVIEW

The DoD DAd and the FDAD designated as the data steward of the candidate or modified standard data element must approve or disapprove the data element within 30 workdays of notification that the candidate data element has been submitted for review. Requests for time waivers must be sent electronically to the DoD DAd with reason why more time is required. The DoD DAd and the designated FDAD (data steward) will conduct concurrent reviews of candidate standard elements as described, in subsections D. 1. and D. 2., below. The DoD DAd will allow a minimum of 20 workdays before approving a data element to permit any CDAD and FDAD time to review and comment on the data element.

##### 1. Technical Review

a. The DoD DAd reviews the candidate or modified standard data element within 30 workdays and determines if the candidate standard element conforms to DoD Data Administration (DAdm) policy and does not conflict with existing standard data elements.

b. The DoD DAd will review the data element met a data attributes for completeness and conformance with current DDRS technical requirements as specified in the DDRS End User Manual (reference (k)).

c. The DoD DAd will validate the data element by confirming conformance to the DoD data model.

d. Recommendation for technical approval will be an notated in comments on the data element in the DDRS.

e. Recommendation for technical rejection and supporting reasons will be annotated in comments on the data element in the DDRS for resolution by the designated data steward.

## 2. Functional Review

a. The designated FDAD reviews the candidate or modified standard data element within 20 work days for consistency within the functional area and for conformance with cross-functional integration requirements. The FDAD validates the data element metadata attributes to ensure that the data element is functionally accurate and complete. If the FDAD believes that some other FDAD should be the data steward, that change will be made and a comment explaining the rationale will be provided. The 20 workday review period begins again any time the data steward is changed.

b. The designated FDAD will coordinate with appropriate FDADs and CDADs to ensure that the data element will meet all functional and Component data requirements. The designated FDAD will coordinate efforts to resolve any technical deficiencies. Each FDA must review their functional area data model and assess the potential configuration changes. If another FDAD believes that the data steward designation was incorrectly made, an electronic comment should be immediately generated to the assigned FDAD and the DoD DAD for resolution.

c. The designated FDAD must coordinate modified standard data elements with the other FDADs and functional counterparts within the Components that will be affected by the change to the existing data element. Users of the existing standard data element are indicated by the information systems registered in the DDRS as applications of the standard data element.

d. If the designated FDAD does not obtain concurrence from all respondents, the FDAD may still elect to approve the data element. All nonconcurrences, however, must be noted in the DDRS for review by the DoD DAD. The issue may be brought to the attention of the DoD DAD for resolution or elevated to a higher level for resolution as discussed in paragraph D. 3. a., below.

e. If the FDAD determines that the data element is not consistent with, or conflicts with, existing standard or modified data elements within the functional area, the FDAD notifies the DoD DAD by annotating the reasons for rejection in the DDRS.

f. If no conflicts exist, the FDAD recommends approval of the data element and notifies the DoD DAD by annotating the approval in comments on the data element in the DDRS.

## 3. DoD DAD Evaluation and Final Approval

a. The DoD DA devaluates the recommendations from the technical and functional reviews and obtains consensus on a final recommendation within 10 work days after completion of the technical and functional reviews.

(1) If the technical and functional review recommendations are not the same, the DoD DAD will coordinate with the FDAD to resolve the conflict.

(2) If the conflict cannot be resolved by the DoD DAD, the DoD DAD will forward the issue, together with respective recommendations, to the Director of Defense Information (DDI) for resolution.

(3) If the conflict cannot be resolved by the DDI it will be forwarded to the DoD Senior Information Resources Management (IRM) official for final resolution.

- b. When the final recommendation is for approval, the status of the data element is changed to approved.
- c. When the final recommendation is for disapproval, the status of the data element is changed to disapproved and the CDAD or FDAD that submitted the data element is automatically notified of the disapproval. After notification of disapproval, the submitting CDAD or FDAD may either delete the data element from the DDRS or make appropriate changes and resubmit the data element.

## CHAPTER 6

### DATA ELEMENT MAINTENANCE PROCEDURES

#### A. PURPOSE

Approved standard generic and data elements can be implemented or modified for use in various applications or information systems, or they may be archived when no longer required. Archived standard generic and data elements maybe reinstated for use. The following maintenance procedures describe the processes for registering use of a data element by an application, modifying approved data elements, archiving standard generic and data elements, and reinstating archived standard generic or data elements.

#### B. REGISTERING DATA ELEMENT APPLICATIONS

All new information systems and migration information systems must be registered in the DDRS. Upon completion of the system interface definition prescribed by MIL-STD- 2167-A (reference (j)) or database specifications prescribed by DoD Directive 7935.1 (reference (i)), data element attributes in the DDRS must be updated to identify the information system(s) and/or application(s) using each standard data element.

Register applications of each standard data element according to the following procedures. More detailed procedures can be found in the DDRS End User Manual (reference (k)),

##### 1. New Applications and/or information Systems and Migration Systems Using Standard Data Elements

- a. Record the standard data element name for which the application is being registered.
- b. Record the standard data element component code.
- c. Record the identification of the application ("Automated information software system identifier").
- d. Record the name of the application ("Automated information software system name").
- e. Record the standard data element access name.

##### 2. Migration Systems Not Using Standard Data Elements

This information is required to assist in the evolutionary transition to the use of standard data elements.

- a. Data in migration information systems will be registered as application data elements by the Component or OSD staff owning the migration information system(s).



- b. Review the DDRS to identify the DoD standard data element corresponding to the existing system data element, if one exists; if none exists go to section e., below.
- c. Record the DoD standard data element name for which the application is being registered.
- d. Record the standard data element component code.
- e. Record the identification of the application ("Automated information software system identifier").
- f. Record the name of the application ("Automated information software system name").
- g. Record all variances between the metadata attribute values of the data element for which the application is being registered and the metadata attribute values of the standard data element. (This might include a formula or algorithm used to derive the data element.)
- h. Record the data element attributes (metadata) that do not correspond to the standard data element.
- i. Record data element access name.

(1) Data element access names provide the direct link between the standard data elements defined in the DDRS and the application of those standard data elements in automated information systems.

(2) The length of access names (i.e., identification of data fields in database and file structures) is important to analysts, designers, and programmers who must produce documentation and program code using standard data elements.

#### C. MODIFYING EXISTING STANDARD DATA ELEMENTS

- 1. Modifications may be proposed for any standard data element. The conventions, rules, guidelines, and procedures that apply to developmental data elements also apply to proposed modifications of standard data elements.
- 2. Based on the attributes of the standard data element to be modified, follow the same procedure as for creating a developmental data element (Chapter 4, above) using the steps relating to the data element(s) proposed for modification. A review of the standard data elements in the DDRS may preclude the need to develop a modified standard data element.
- 3. The current version of the standard data element being modified will be automatically archived upon approval of the modified standard data element.

#### D. ARCHIVING STANDARD DATA AND GENERIC ELEMENTS

Standard data elements and their associated generic elements may be changed to an archived status based on the recorded use of the standard data elements. The archived standard generic and data elements are retained in the DDRS for historical reference and possible reinstatement based on changing functional information

requirements. Standard generic elements and data elements are changed to an archived status through the following process:

1. Standard Data Elements

a. The CDAd and FDAd will identify standard data elements that are no longer used or needed by information systems based on changes in functional information requirements and notify the appropriate FDAD (data steward).

b. The CDAd or FDAd will notify the affected CDAd and FDAd of standard data elements to be deleted from information systems supporting the respective Component or functional areas based on the using Components and using systems registered in the DDRS.

c. When the FDAd(s) and the CDAd(s) establish the effective date for deleting a data element(s) from an information system(s), the data steward for the data element will notify the DoD DAd of the affected data element(s) and information systems and the effective date for deletion.

d. The DoD DAd will delete the affected information system(s) and associated Component(s) from the list of users registered in the DDRS on the effective date for deletion.

e. if no information systems or Components remain on the list of users registered in the DDRS for a standard data element, the DoD DAd will notify the appropriate FDAD (data steward) and recommend that the standard data element be archived.

f. Based on the DoD DAd recommendation to archive a standard data element, the data steward will assess the functional or technical need to retain the standard data element.

g. if the data steward determines that the standard data element should not be archived, the data steward will notify the DoD DAd to retain the standard data element in the DDRS in its existing status rather than archiving it.

h. if the data steward determines that there is no technical or functional need to retain the standard data element, the data steward will notify the DoD DAd to change the status of the standard data element to an archived standard data element. There will be a general announcement in the DDRS when this is to occur.

2. Standard Generic Elements

a. When a standard data element is archived, the DoD DAd will review the list of remaining standard data elements associated with the corresponding standard generic element.

b. If there are no remaining standard data elements associated with the corresponding standard generic element, the DoD DAd will assess the functional or technical need for retaining the approved standard generic element.

c. If the DoD DAd determines that the approved standard generic element should be retained, the approved standard generic element will remain in the DDRS.

d. If the DoD DAd determines that the approved standard generic element should not be retained, the DoD DAd will change the status of the approved standard generic element to an archived standard generic element. There will be a general announcement in the DDRS when this is to occur.

E. REINSTATING ARCHIVED STANDARD DATA AND GENERIC ELEMENTS

A review of the DDRS during the data element development or modification process may locate an archived standard data element that is suitable for use. In such a case, the archived standard data element and the associated standard generic element, if necessary, should be reinstated. Archived standard generic and data elements may be reinstated for use through the following process:

1. Notify the appropriate FDAD (data steward) that the archived standard data element exists and recommend that the archived standard data element be reinstated as a standard data element.
2. The data steward will review the archived standard data element for applicability and accuracy.
3. If the archived standard data element is accepted by the data steward, the data steward will notify the DoD DAd that the archived standard data element and the associated standard generic element, if necessary, is to be reinstated and the effective date for reinstatement.
4. Based on the approval and notification by the data steward, the DoD DAd will change the status of the archived standard data element and its associated standard generic element, if necessary, to an approved standard data element and an approved standard generic element, respectively.
5. After the archived standard data element has been reinstated as an approved standard data element, the application using the reinstated standard data element must be registered in the DDRS, as described in subsection B. 1., above.

APPENDIX ACLASS WORD NAME DEFINITIONS

Proposals for new class words must be submitted through the appropriate CDAD or FDAD to the DoD DAD for approval.

<u>Class Word Name</u>	<u>Abbreviation</u>	<u>Description and/or Definition Structure</u>
Amount	AM	<p>A monetary value. (Includes average, balance, deviation, factor, index, level, mean, mode, scale, and yield.)</p> <p>The generic element definition should begin: "The monetary unit representing</p>
Angle	AN	<p>The data element definition should begin: "The (modifiers) amount of"</p> <p>The rotational measurement between two lines and/or planes diverging from a common point and/or line. (Includes azimuth and heading.)</p> <p>The generic element definition should begin: "The rotational measurement between "</p> <p>The standard data element definition should begin: "The (modifiers) angle between (modifiers) for a"</p>
Area	AR	<p>The measurement of a surface expressed in unit squares (2 dimensional).</p> <p>The generic element definition should begin: "The area of"</p> <p>The standard data element definition should begin: "The (modifiers) area of "</p>
Code	CD	<p>A combination of one or more numbers, letters, or special characters substituted for a specific meaning. Represents finite, predetermined values. (Must have a specific domain.) (includes category and status.)</p>

<u>Class Word Name</u>	<u>Abbreviation</u>	<u>Description and/or Definition Structure</u>
		<p>The generic element definition should begin: "The specific value that represents and/or denotes a"</p> <p>The standard data element definition should begin: "The (modifiers) code that represents and/or denotes a "</p>
Coordinate	CN	<p>Designation of the location of a line or plane. (Includes latitude and longitude.)</p> <p>The generic element definition should begin: "The numeric designation identifying the location of"</p> <p>The standard data element definition should begin: "The coordinate identifying the (modifiers) location of"</p>
Date	DT	<p>The designation of a specific 24-hour period of time.</p> <p>The generic element definition should begin: "The date of and/or when and/or on which a"</p> <p>The standard data element definition should begin: "The (modifiers) date of and/or when and/or on which a"</p>
Dimension	DM	<p>A measured linear distance (1 dimensional). (Includes altitude, depth, diameter, elevation, height, length, radius, vertex, and width.)</p> <p>The generic element definition should begin: "The one-dimensional linear measurement (length, width, height, radius, or elevation, etc.) of and/or from"</p> <p>The standard data element definition should begin: "The dimension (length, width, height, radius, or elevation, etc.) of and/or from"</p>
identifier	ID	<p>A combination of one or more numbers, letters, or special characters</p>

<u>Class Word Name</u>	<u>Abbreviation</u>	<u>Description and/or Definition Structure</u>
		<p>that designate a specific object/entity but that have no readily definable meaning. (Must have a general domain.) (Includes designator, key, number.)</p> <p>The generic element definition should begin: "The unique value, or set of characters, assigned to represent"</p> <p>The standard data element definition should begin: "The (modifiers) identifier that represents"</p>
Mass	MS	<p>The measure of inertia of a body.</p> <p>The generic element definition should begin: "The measure of inertia of"</p> <p>The standard data element definition should begin: "The (modifiers) mass of "</p>
Name	NM	<p>A designation of an object and/or entity expressed in a word or phrase.</p> <p>The generic element definition should begin: "The word(s) that represent(s)"</p> <p>The standard data element definition should begin: "The name of"</p>
Quantity	QY	<p>A nonmonetary numeric value. (includes average, balance, count, deviation, factor, index, level, mean, median, mode, and scale.)</p> <p>The generic element definition should begin: "The nonmonetary numeric unit representing the count or calculated unit or aggregated unit of"</p> <p>The standard data element definition should begin: "The (modifiers) quantity of"</p>
Rate	RT	<p>A quantity or degree of something in relation to units of something else (e.g., miles per gallon). (Includes acceleration, density, factor, flow,</p>



<u>Class Word Name</u>	<u>Abbreviation</u>	<u>Description and/or Definition Structure</u>
		<p>force, frequency, humidity, impedance, inductance, intensity, magnitude, moment, percent, power, pressure, resistance, scale, speed, tension, torque, velocity, viscosity, and voltage.)</p> <p>The generic element definition should begin: "The relationship that represents (force, speed, or pay, etc.) of "</p> <p>The standard data element definition should begin: "The rate of"</p>
Temperature	TP	<p>The measure of heat in an object or space.</p> <p>The generic element definition should begin: "A number representing the heat of "</p> <p>The standard data element definition should begin: "The temperature of"</p>
Text	TX	<p>An unformatted character string, generally in the form of words. (includes category and comments.)</p> <p>The generic element definition should begin: "The free form narrative that (describes and/or defines)"</p> <p>The standard data element definition should begin: "The text of"</p>
Time	TM	<p>A designation of a specified chronological point within a period.</p> <p>The generic element definition should begin: "The specific chronological point that designates the occurrence (in the past, present, or future) of "</p> <p>The standard data element definition should begin: "The time of"</p>
Volume	VL	<p>Measurement of space occupied by a three- dimensional figure as measured in cubic units.</p>



<u>Class Word Name</u>	<u>Abbreviation</u>	<u>Description and/or Definition Structure</u>
		<p>The generic element definition should begin: "The three-dimensional cubic measurement of "</p> <p>The standard data element definition should begin: "The volume of"</p>
Weight	WT	<p>The force with which an object is attracted toward the earth and/or another celestial body by gravitation.</p> <p>The generic element definition should begin: "The weight of"</p> <p>The standard data element definition should begin: "The weight of"</p>

<GRAPHIC: DODA1.PCX>

(Graphic DODA1.PCX not included on original disk.)

APPENDIX BGENERIC AND DATA ELEMENT ATTRIBUTE DESCRIPTIONS

The following alphabetical list of attributes reflects the contents of the DDRS at date of publication of this Manual. These attributes will change over time through a configuration control process after recommendations are made to the DoD DAd. Refer to the DDRS for the most up-to-date versions of these attributes. This information is included due to its importance. For additional information see reference (k). The data elements listed in this Appendix have not been approved but are based on a data model and will be submitted as candidate standard data elements upon approval of the required prime words.

A. AUTOMATED INFORMATION SOFTWARE SYSTEM IDENTIFIER

1. Definition: Identification of the entire set of programs, procedures, and related documentation associated with a computer system.
2. Domain Definition: A general domain comprised of the characters in the ASCII character set.
3. Length: 35
4. Type: Alpha-numeric
5. Edit: Required attribute

B. AUTOMATED INFORMATION SOFTWARE SYSTEM NAME

1. Definition: The name of a system that maintains (adds, modifies, and deletes) a standard data element.
2. Domain Definition: A general domain comprised of the characters in the ASCII character set.
3. Length: 250
4. Type: Alpha-numeric
5. Edit: Required attribute

C. GENERIC ELEMENT AUTHORITY REFERENCE TEXT

1. Definition: Free form text that describes the authority for and/or references supporting the existence of a particular generic element.
2. Domain Definition: A general domain comprised of the characters in the ASCII character set.
3. Length: 999
4. Type: Alpha-numeric

5. Edit: Optional attribute.

D. GENERIC ELEMENT CLASS WORD NAME

1. Definition: The word that identifies a specific category of data (e.g., date, dimension, and code, etc.) that will be represented by data values of a standard data element associated with a particular generic element.

2. Domain Definition: A specific domain comprised of the qualitative data values listed in Appendix A above, of this Manual.

3. Length: 80

4. Type: Alphabetic

5. Edit: Required attribute. The class word must be in class word table in an approved "A" status unless creating a new class word. Prohibit the use of class word by other users until approved for DoD use.

E. GENERIC ELEMENT CLASS WORD POSITION IDENTIFIER

1. Definition: The number identifying the location of the class word in the generic element name.

2. Domain Definition: A general domain comprised of up to two of the following integer values: 1-99.

3. Length: 2

4. Type: Integer

5. Edit: Required attribute

F. GENERIC ELEMENT DECIMAL PLACE COUNT QUANTITY

1. Definition: The quantity of decimal places allowable for a given generic element value.

2. Domain Definition: A general domain comprised the ASCII characters: 0 -99.

3. Length: 2

4. Type: Numeric

5. Edit: Required attribute for generic element only if the generic element type name is fixed-point. This attribute is displayed at the data element level and cannot be changed.

G. GENERIC ELEMENT DEFINITION TEXT

1. Definition: Free form text that represents the definition of a given generic element.

2. Domain Definition: A general domain comprised of the characters in the ASCII character set.
3. Length: 999
4. Type: Alpha-numeric
5. Edit: Required attribute

H. GENERIC ELEMENT DOMAIN DEFINITION TEXT

1. Definition: Freeform text that describes the overall meaning or general characteristics of the domain of a particular generic element.
2. Domain Definition: A general domain comprised of the characters in the ASCII character set.
3. Length: 999
4. Type: Alpha-numeric
5. Edit: Required attribute.

I. GENERIC ELEMENT DOMAIN VALUE DEFINITION TEXT

1. Definition: Freeform text describes the meaning of a domain value of a given generic element.
2. Domain Definition: A general domain comprised of the characters in the ASCII character set.
3. Length: 999
4. Type: Alpha-numeric
5. Edit: Required attribute if there are no low-range or high-range identifiers.

J. GENERIC ELEMENT DOMAIN VALUE IDENTIFIER

1. Definition: The unique identifier that represents a particular value within the domain of a specific generic element.
2. Domain Definition: A general domain comprised of the following ASCII characters: A - Z, 0 - 9, hyphen (-), point (.), slash (/), underscore (\_), and ampersand (&).
3. Length: 35
4. Type: Alpha-numeric
5. Edit: Required attribute for quantitative data if there are no low-range and high-range identifiers or no source list text.

K. GENERIC ELEMENT HIGH-RANGE IDENTIFIER

1. Definition: The unique identifier that denotes the highest allowable value permitted in the domain range of a given generic element.
2. Domain Definition: A general domain comprised of all real numbers.
3. Length: 15
4. Type: Numeric
5. Edit: Required attribute if there are no domain value identifiers or source list text. If there is a high-range identifier, it must not be greater than the maximum character count quantity.

L. GENERIC ELEMENT LOW-RANGE IDENTIFIER

1. Definition: The unique identifier that denotes the lowest allowable value permitted in the domain range of a given generic element.
2. Domain Definition: A general domain comprised of the following ASCII characters: 0 - 9, point (.), and minus (-).
3. Length: 15
4. Type: Numeric
5. Edit: Required attribute if there are no domain value identifiers or source list text.

M. GENERIC ELEMENT MAXIMUM CHARACTER COUNT QUANTITY

1. Definition: The maximum quantity of characters that can be stored for a domain value associated with a given generic element.
2. Domain Definition: A specific domain of quantitative data values ranging from 0001 - 9999.
3. Length: 4
4. Type: Numeric
5. Edit: Required attribute.

N. GENERIC ELEMENT NAME

1. Definition: The long standard name of a specific type of data element (generic element that describes and identifies a generic structure and domain. A generic element has no organizational or application context.

The structured name format comprises zero to n modifiers and one class word.

The general name format comprises: modifier and/or modifier and/or class word.

2. Domain Definition: A general domain comprised of the following ASCII characters- A - Z, hyphen (-), and space.

3. Length: 80

4. Type: Alpha-numeric

5. Edit: Required attribute. The class word must be in the class word table unless the-user is creating a new class word.

O. GENERIC ELEMENT SECURITY CLASSIFICATION NAME

1. Definition: A code that defines the security classification of the existence of a specific generic element or its metadata.

2. Domain Definition: A specific domain comprised of the following qualitative data values:

NATO (North Atlantic Treaty Organization) Top Secret Atomal  
 NATO Top Secret  
 Top Secret  
 NATO Secret Atomal  
 NATO Secret  
 Secret  
 Secret Restricted  
 NATO Confidential Atomal  
 NATO Confidential  
 Confidential  
 Confidential Restricted  
 NATO Restricted  
 For Official Use Only  
 Unclassified Sensitive  
 Unclassified

3. Length: 25

4. Type: Alphabetic

5. Edit: Required attribute. The default is unclassified (maybe changed).

P. GENERIC ELEMENT TYPE NAME

1. Definition: The name of the data type associated with a specific generic element.

2. Domain Definition: A specific domain comprised of the following qualitative data value bit-string, integer, character string, fixed-point, and Floating-point.

3. Length: 16

4. Type: Alpha-numeric
5. Edit: Required attribute

Q. INFORMATION ELEMENT JUSTIFICATION CATEGORY NAME

1. Definition: The positional justification of data values within a storage field.
2. Domain Definition: A specific domain comprised of the following qualitative data values: left and right.
3. Length: 5
4. Type: Alphabetic
5. Edit: Required attribute for a generic element and display only for a data element.

R. INFORMATION ELEMENT STANDARDIZATION AUTHORITY CODE

1. Definition: The branch of service, government, or international organization that approved the element.
2. Domain Definition: A specific domain comprised of the following qualitative data values:  
 ANSI American National Standards Institute  
 DoD Department of Defense.  
 FIPS Federal Information Processing Standards  
 ISO International Organization for Standardization  
 NATO North Atlantic Treaty Organization
3. Length: 4
4. Type: Alphabetic
5. Edit: Optional attribute.

S. INFORMATION QUALITATIVE DATA VALUE ACCURACY NUMBER PERCENT RATE

1. Definition: An indicator of how accurate a qualitative data value must be.
2. Domain Definition: A specific domain comprised of qualitative data values (O - 9) ranging from 1 to 100.
3. Length: 3
4. Type: Numeric
5. Edit: Required attribute if data is qualitative.



T. INFORMATION QUANTITATIVE DATA ACCURACY CODE

1. Definition: A character string indicating how accurate a quantitative data value must be.
2. Domain Definition: A specific domain comprised of the following qualitative data values:
 

1	nearest million
2	nearest 100,000
3	nearest 10,000
4	nearest 1,000
5	nearest 100
6	nearest 10
7	nearest 1
8	nearest.1
9	nearest.01
10	nearest.001
11	1 nearest.0001
12	nearest.00001
99	none
3. Length: 2
4. Type: Numeric
5. Edit: Required attribute if data is quantitative.

U. PRIME WORD NAME

1. Definition: The name of the primary object (i.e., person, place, thing, or concept) of interest that a given data element describes.
2. Domain Definition: A general domain comprised the ASCII characters A-Z and hyphen (-).
3. Length: 170
4. Type: Alphabetic
5. Edit: Required attribute. The prime word name is a variable length field comprising zero to n modifiers and a prime word.

V. PRIME WORD NAME DEFINITION TEXT

1. Definition: A narrative describing the context of a principal term that has a precise meaning as it relates to a data entity standard.
2. Domain Definition: A general domain comprised of the characters in the ASCII character set.
3. Length: 999
4. Type: Alpha-numeric

5. Edit: Required attribute

W. PRIME WORD STEWARD NAME

1. Definition: The designated proponent for each prime word name derived from an information model.

2. Domain Definition: A general domain comprising the following:

USD(A)  
ASD (P&L)  
USD(P)  
ASD(SOLIC)  
ASD(C31)  
C,DOD  
ASD(FM&P)  
ASD(HA)  
ASD(LA)  
ASD(PA)  
ASD(PA&E)  
ASD(RA)  
IG, DOD  
GC, DOD  
OSD(A&M).

3. Length: 10
4. Type: Alpha-numeric
5. Edit: Required attribute

X. PRIME WORD USING PROPONENT MODEL NAME

1. Definition: The name of the proponent for which the prime word name is contained in an information model.

2. Domain Definition: A general domain comprised of the ASCII character set.

3. Length: 10
4. Type: Alpha-numeric
5. Edit: Optional attribute

Y. PRIME WORD MODIFIER NAME

1. Definition: A character string that further describes a characteristic of an object, a relationship between objects or the object itself.

2. Domain Definition: A general domain comprised of the ASCII characters: A - Z, hyphen (-), and underscore

3. Length: 170



4. Type: Alpha-numeric
5. Edit: Optional attribute. Cannot be a class word.

Z. PRIME WORD POSITION IDENTIFIER

1. Definition: The number identifying the location of the prime word name in the data element name.
2. Domain Definition: A general domain comprised of integer values 01 - 99.
3. Length: 2
4. Type: Numeric
5. Edit: Required attribute

AA. STANDARD DATA ELEMENT ACCESS NAME

1. Definition: An abbreviated name representing a specific data element. An access name is use to reference a data element in a database and must conform to the syntactical requirements of the database management system (DBMS) or programming language of the application in which a data element is used.
2. Domain Definition: A general domain comprised of the following ASCII characters: A - Z, 0 - 9, hyphen (-), underscore (\_), and period
3. Length: 30
4. Type: Alpha-numeric
5. Edit: Required at the time a data element is identified for use in an automated system.

BB. STANDARD DATA ELEMENT AUTHORITY REFERENCE TEXT

1. Definition: Free form text that describes the authority for and/or references supporting the existence of a particular data element.
2. Domain Definition: A general domain comprised of the characters in the ASCII character set.
3. Length: 999
4. Type: Alpha-numeric
5. Edit: Optional attribute.

CC. STANDARD DATA ELEMENT COMMENT TEXT

1. Definition: An administrative narrative regarding a generic element, standard data element, or nonstandard data element.



2. Domain Definition: A general domain comprised of the characters in the ASCII character set.
3. Length: 999
4. Type: Alpha-numeric
5. Edit: Optional attribute.

#### DD. STANDARD DATA ELEMENT COMPONENT CODE

1. Definition: A code that denotes the DoD organization that uses a given data element within its systems.
2. Domain Definition: A specific domain comprised of data values identifying the DoD Components. For example:

DCAA Defense Contract Audit Agency  
 DFAS Defense Finance and Accounting Service.  
 DIA Defense Intelligence Agency  
 DIS Defense Investigative Agency  
 DISA Defense Information Systems Agency  
 DLA Defense Logistics Agency  
 DLSA Defense Legal Services Agency  
 DMA Defense Mapping Agency  
 DNA Defense Nuclear Agency  
 DRPA Defense Research Projects Agency  
 DSAA Defense Security Assistance Agency  
 NSA National Security Agency/Central Security Service  
 OSD Office of the Secretary of Defense  
 SDIO Strategic Defense Initiative Organization  
 USAF Department of the Air Force  
 USMC Marine Corps

The above is a partial list of domain data values; the complete list of domain data values is available in the DDRS.

3. Length: 15
4. Type: Alphabetic
5. Edit: Optional attribute

#### EE. STANDARD DATA ELEMENT DATA VALUE SOURCE LIST TEXT

1. Definition: The source in which a lengthy list of data values is enumerated.
2. Domain Definition: A general domain comprised of the characters in the ASCII character set.
3. Length: 999
4. Type: Alpha-numeric

5. Edit: Optional attribute. For qualitative data if you have source list text, you will not have domain value identifiers.

#### FF. STANDARD DATA ELEMENT DECIMAL PLACE COUNT QUANTITY

1. Definition: The quantity of decimal places allowable for a given data element.
2. Domain Definition: A general domain comprised of the ASCII characters 0-9.
3. Length: 2
4. Type: Numeric

5. Edit: Required attribute for generic element if element type name is fixed point. This attribute is displayed at the data element level and cannot be changed. If there is a decimal place count quantity at the generic element level and the element type name is other than fixed-point, the system will display the decimal place count quantity, and it can be changed to be equal to or less than the decimal place count quantity at the generic element level.

#### GG. STANDARD DATA ELEMENT DEFINITION TEXT

1. Definition: Free form text that represents the definition of a given data element.
2. Domain Definition: A general domain comprised of the characters in the ASCII character set.
3. Length: 999
4. Type: Alpha-numeric
5. Edit: Required attribute

#### HH. STANDARD DATA ELEMENT DOMAIN DEFINITION TEXT

1. Definition: Free form text that describes the overall meaning or generic characteristic so the domain of a specific data element.
2. Domain Definition: A general domain comprised of the characters in the ASCII character set.
3. Length: 999
4. Type: Alpha-numeric
5. Edit: Required attribute (entered at generic element level and displayed at data element level). It can be changed at data element level.

## II. STANDARD DATA ELEMENT DOMAIN VALUE DEFINITION TEXT

1. Definition: Free form text that describes the meaning of a domain value of a given data element.
2. Domain Definition: A general domain comprised of the characters in the ASCII character set.
3. Length: 999
4. Type: Alpha-numeric
5. Edit: If there are domain value definitions at the generic element level, they will be displayed at the data element level. If the domain value identifier is deleted, the domain value definition will be deleted at the same time. The domain value identifiers and definitions must be the same or a subset of the generic element.

## JJ. STANDARD DATA ELEMENT DOMAIN VALUE IDENTIFIER

1. Definition: The unique identifier that represents a value within the domain of a specific data element.
2. Domain Definition: A general domain comprised of the following ASCII characters:- A - Z, 0 - 9, hyphen C-, point (.), 0 - 9, slash (/), underscore (\_), and ampersand (&). When the data element is quantitative, allowable values are 0 - 9 and decimal point (.).
3. Length: 35
4. Type: Alpha-numeric
5. Edit: If there are domain value identifiers, there will not be a high-range and low-range identifier. If there are domain value identifiers at the generic element level, the system will display them at the data element level. They can be changed but must be the same set or subset of the generic element.

## KK. STANDARD DATA ELEMENT FORMULA DEFINITION TEXT

1. Definition: Free form text that describes the specific mathematical formula or process required to calculate the value of a given quantitative data element.
2. Domain Definition: A general domain comprised of the characters in the ASCII character set.
3. Length: 999
4. Type: Alpha-numeric
5. Edit: Optional attribute.



LL. STANDARD DATA ELEMENT FUNCTIONAL AREA CODE

1. Definition: An indication of the functional area of responsibility within the Department of Defense.
2. Domain Definition: A specific domain comprised of qualitative data values ranging from 001 - 999.
3. Length: 3
4. Type: Numeric
5. Edit: Required attribute

MM. STANDARD DATA ELEMENT HIGH-RANGE IDENTIFIER

1. Definition: A unique identifier that denotes the highest allowable quantity permitted in the range of domain values of a given data element.
2. Domain Definition: A general domain comprised of the set of all real numbers.
3. Length: 15
4. Type: Numeric
5. Edit: If there is a high-range identifier at the generic element level, the stem will display it. It can be changed to be equal to or less than the high-range identifier of the generic element. If there is a high-range identifier, it must not be greater than the maximum capable of being stored according to the character count quantity of the data element.

NN. STANDARD DATA ELEMENT LOW-RANGE IDENTIFIER

1. Definition: A unique identifier that denotes the lowest allowable quantity permitted in the range of the domain values of a given data element.
2. Domain Definition: A general domain comprised of the set of all real numbers.
3. Length: 15
4. Type: Numeric
5. Edit: If there is a low-range identifier at the generic element level, the system will display it. It can be changed to be equal to or greater than the low-range identifier of the generic element.

OO. STANDARD DATA ELEMENT MAXIMUM CHARACTER COUNT QUANTITY

1. Definition: The maximum quantity of characters that can be stored for a data element.



2. Domain Definition: A general domain comprised of integer values ranging from 1 to 9999.
3. Length: 4
4. Type: Numeric
5. Edit: Required attribute. This is a display field brought over from the generic element. this field can be less than the length of the generic element.

PP. STANDARD DATA ELEMENT NAME

1. Definition: The long standard name that describes and identifies a given data element. Structured name format will consist of a prime word name and a generic element name.

2. Domain Definition: A general domain comprising the following ASCII characters: A - Z and hyphen
3. Length: 250
4. Type: Alpha-numeric
5. Edit: Required attribute. Generic element name indicated must be a DoD-approved element. The data element name cannot already exist in the DDRS.

QQ. STANDARD DATA ELEMENT ORIGIN OFFICE NAME

1. Definition: The name of the office that originated or proposed the metadata about a specific element.
2. Domain Definition: A general domain comprised of the characters in the ASCII character set.
3. Length: 100
4. Type: Alpha-numeric
5. Edit: Required attribute

RR. STANDARD DATA ELEMENT REVIEW COMMENT TEXT

1. Definition: A narrative that provides remarks pertinent to the evaluation of a candidate element.
2. Domain Definition: A general domain comprised of the characters in the ASCII character set.
3. Length: 9999
4. Type: Alpha-numeric
5. Edit: Optional attribute.

SS. STANDARD DATA ELEMENT SECURITY CLASSIFICATION NAME

1. Definition: A code defines the security classification of the existence of a given data element and its metadata.
2. Domain Definition: A specific domain comprised of the following qualitative data values:  
  
NATO top secret atomal  
NATO top secret  
Top secret  
NATO secret atomal  
NATO secret  
Secret  
Secret restricted  
NATO confidential atomal  
NATO confidential  
Confidential  
Confidential restricted  
NATO restricted  
For official use only  
Unclassified sensitive  
Unclassified
3. Length: 25
4. Type: Alphabetic
5. Edit: Required attribute. Default is unclassified.

TT. STANDARD DATA ELEMENT STEWARD NAME

1. Definition: The name of the office responsible for managing the metadata of a specific data element.
2. Domain Definition: A general domain comprised of the following ASCII characters: A - Z, hyphen (-), point (.), and 0 - 9.
3. Length: 250
4. Type: Alpha-numeric
5. Edit: Required attribute

UU. STANDARD DATA ELEMENT TIMELINESS CODE

1. Definition: An indication of how often data values must be updated.
2. Domain Definition: A specific domain comprised of the following qualitative data values:  
  
AR As Required  
A Annually  
BI Biennially



BM	Bimonthly
BW	Biweekly
D	Daily
H	Hourly
M	Monthly
OT	One Time
Q	Quarterly
QDY	Quarter Day
QI	Quinquennially
QD	Quadrennially
RT	Real Time
SA	Semiannually
TD	Twice Daily
TH	Twice Hourly
TRA	Thrice Annually
TRI	Triennially
Z	None

3. Length: 3
4. Type: Alphabetic
5. Edit: Required attribute

VV. STANDARD DATA ELEMENT UNIT MEASURE NAME

1. Definition: The word or combination of words that express the designation of how the data values for a data element are measured (e.g., Inches, Pounds, Dollars, Gallons).
2. Domain Definition: A general domain comprised of the following ASCII characters-: A - Z, hyphen (-), and slash
3. Length: 30
4. Type: Alpha-numeric
5. Edit: Required attribute for elements containing quantitative class names.

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